

## CLAIM AMENDMENTS

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (New) A method of treating a metal surface with a liquid, water immiscible and water displacing corrosion preventive compound, comprising the steps of:  
cleaning, rinsing, and drying the surface of the metal to remove mill scale, soils, oils, corrosion products, or previous coatings to expose as much of the surface as possible so said corrosion preventive compound can penetrate to all apexes of cracks, scratches, and gouges, where stress concentrations or stress intensity factor exist, whereby water or moisture at said apexes, is displaced and said compound protects the metal-to-metal bonds at the apexes when said bonds are stretched and possess elastic potential energy that in contrast with untreated metal-to-metal bonds the chemical activation energy level for corrosion could be exceeded and fail.
5. (New) A metal surface treatment as set forth in claim 4, including the application of an etch appropriate for the metal, comprising the steps of:
  - (a) applying the etch by brushing, rolling, spraying, or dipping for discrete times as appropriate for the metal;
  - (b) rinsing with water; and
  - (c) drying the treated metal;  
whereby said etch increases the apex radii of cracks, gouges, scratches, etc. to minimize stress intensity factors and distribute forces and potential energy from internal or external stresses to more metal-to-metal bonds than at the unetched apex radii locations so that stress intensity factors and bond potential energy

levels are reduced in contrast with unetched surfaces and said bond potential energy is less to avoid the activation energy required to initiate metal-to-metal bond failure.

6. (New) A method of metal surface treatment processes as set forth in claim 5, embodying the use of a surface etch, followed by the surface treatment with a liquid corrosion preventive compound whereby the strength, flexibility, and fatigue life of the metal are increased in contrast with the normally expected metal strength, flexibility, and fatigue life of metal not treated by said technology.

## IDS

- A. Designing to Minimize Corrosion  
Peter Elliott, Corrosion and Materials Consultancy, Inc.  
  
American Society of Metals Handbook Volume 13A p. 929  
Corrosion: Fundamentals, Testing and Protection
  
- B. American Society of Metals Handbook Volume 13A  
Prevention or Mitigation of Crevice Corrosion pp. 245-246  
  
Mitigation of Preferential Weldment Corrosion pp. 295-296